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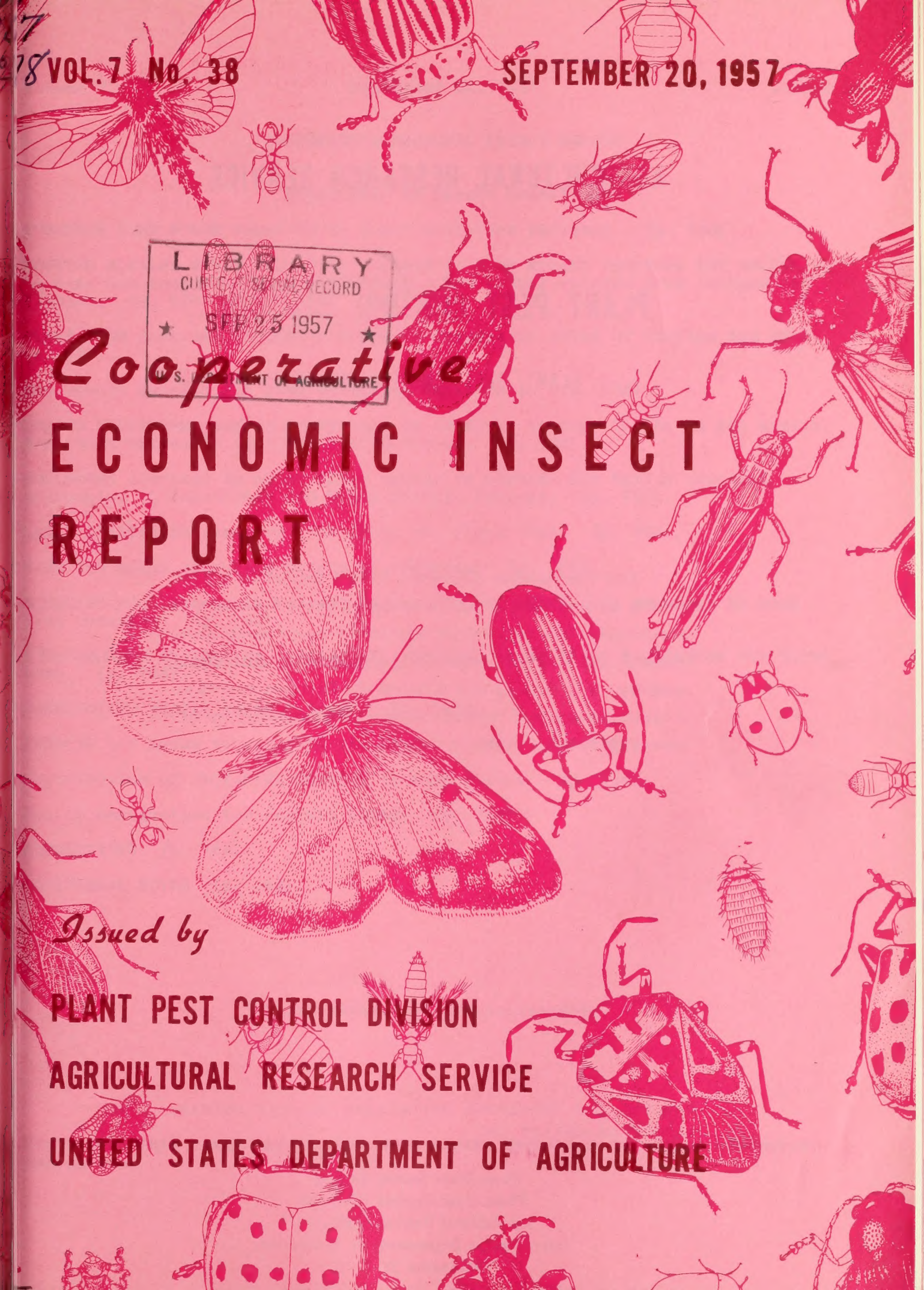

VOL. 7 No. 38 SEPTEMBER 20, 1957

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U.S. DEPARTMENT OF AGRICULTURE

Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

PLANT PEST SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Plant Pest Survey Section
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

Volume 7 September 20, 1957 Number 38

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

EUROPEAN CORN BORER reported in three Louisiana parishes. (p. 755).

SPOTTED ALFALFA APHID requiring control in some Nevada counties but declining to near non-economic levels in Kansas. New county records from Indiana and Alabama. (p. 756).

PLANT BUGS continue unusually heavy in legumes in areas of Indiana and Utah. (p. 757).

New county records for PEAR PSYLLA in California. (p. 758).

TOMATO FRUITWORM causing heavy loss on tomatoes in some fields in New Mexico. Very destructive to lima beans in Delaware. (p. 758).

BOLLWORMS continue to cause heavy damage in several New Mexico counties. Increasing in California and Pinal County, Arizona. (p. 760).

LARCH CASEBEARER reported from Idaho for first time. (p. 765).

PINE TIP MOTHS unusually severe in Arkansas. (p. 761).

MOSQUITO populations increasing in California. Seriously abundant in some Utah counties. (p. 763).

A TENEBRIONID (Tribolium destructor) recorded in State of Washington for first time. (p. 763).

SWEETPOTATO WEEVIL control (map). (p. 759).

INSECTS not known to occur in the United States. (p. 767).

Distribution of JACK-PINE BUDWORM in Lake States. (p. 762).

Family designation for certain MOTHS. (p. 765).

CORRECTIONS (p. 764).

ADDITIONAL NOTES (p. 764).

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Reports in this issue are for the week ending September 13 unless otherwise designated.

WEATHER BUREAU 30-DAY OUTLOOK

MID-SEPTEMBER TO MID-OCTOBER 1957

The Weather Bureau's 30-day outlook for the period mid-September to mid-October calls for temperatures to average above seasonal normals east of the Appalachians with greatest departures along the North and Middle Atlantic Coast. Below normal temperatures are expected to prevail from the lower Mississippi Valley and western Great Lakes Region westward to the Plateau States. In unspecified areas, near normal temperatures are in prospect, except for above normal along the West Coast. Precipitation is expected to exceed normal over the eastern third of the nation, but be subnormal west of the Continental Divide. About normal amounts are indicated in the central third of the country.

Weather forecast given here is based on the official 30-day "Resume and Outlook," published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price $4.80 a year, $2.40 a half year.

WEATHER OF THE WEEK ENDING SEPTEMBER 16

An almost continuous flow of Polar air over central and western interior regions kept temperatures below normal in those areas, while a warm, moist flow of air from the Gulf resulted in several hot, humid days in the eastern United States. Average temperatures for the week ranged from 10° below normal at Cheyenne, Wyo., to 7° above at Baltimore, Md. In New England hot weather was preceded by a cold snap on the 10th when below-freezing minima were recorded at many mountain stations and Greenville, Maine, reported 29°. Maxima in the 90's extended into southern New England by the 13th when Boston's 93° set a new record there for the date. Frost and freezing were reported from numerous places in the Rocky Mountains and northern Great Plains and the extreme upper Mississippi Valley. In Utah the freeze damaged potatoes in Garfield and Piute Counties, and some alfalfa seed and corn in Millard County, and some scattered damage was reported from western Colorado, but elsewhere little or no damage occurred. West of the Continental Divide another rainless week continued the dry weather regime there. In Washington and Oregon the dry weather with above-normal temperatures and low relative humidity created an extreme fire hazard, and logging operations were suspended in western Washington. Precipitation was spotted and mostly light in the Rocky Mountains, the western and extreme northern and southern Great Plains, and extreme upper Mississippi Valley. Rain turned to snow in southeastern Wyoming on the 10th and again on the 13th with 1- to 3-inch falls melting rapidly. On the latter date up to 5 inches of snow also fell in the northern mountains of Colorado.

Rather general moderate to heavy rains fell over the central Great Plains and the area from the Mississippi Basin to the Atlantic Coast, except that amounts were light in upper New England. These rains restored adequate soil moisture for fall planting, germination, and growth in sections of the Great Plains and South, and further improved moisture conditions along the East coast. Weekly totals generally ranged from 1-1/2 to 3 inches in Kansas, 1 to 3 inches in Oklahoma and 1 to locally over 6 inches in the South. Along the middle Atlantic coast amounts generally ranged from 1/2 inch to locally over 2 inches, and general rains were falling east of the Appalachians at the close of the period. Local hail and wind damage occurred in Thomas County, Kans., and on the 10th a small tornado was reported in the Bridgeville, Del., area. Hurricane Carrie at 5 a.m., e.s.t., on the 17th was about 200 miles north-northeast of Bermuda, moving northward about 16 m.p.h., and was expected to turn more to the northeast. Another tropical storm, Esther, was located about 350 miles south of the west Louisiana coast at 4 a.m., c.s.t., September 17. Highest winds near the center were estimated at 45 m.p.h., and the storm was moving northward at 10 m.p.h. (Summary supplied by U. S. Weather Bureau)

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - NORTH CAROLINA - Most important pest of soybeans in Edgecombe County. (Dogger). INDIANA - Mixed species, predominantly Melanoplus femur-rubrum and M. differentialis, 5 per square yard in Pike, Martin, Dubois, Orange and Washington Counties. (Wilson). KANSAS - Survey completed in northeast counties. Counts noticeably less than last year, few localized areas may cause trouble next year. Counts of 1-6.5 per square yard in corn, alfalfa, red clover and sorghum. In weedy areas and some pastures, 1-12 per square yard. Dominant crop species are Melanoplus differentialis, M. bilituratus, M. bivittatus and M. femur-rubrum, with Ageneotettix deorum dominant in pastures. Few grasshoppers parasitized with fly larvae and some have died of a fungus disease. Localized marginal infestations could cause damage to fall wheat and alfalfa in northwest and west central counties. Several counties in this area baiting extensively to give crop protection. (Matthew).

EUROPEAN CORN BORER (Pyrausta nubilalis) - LOUISIANA - Specimens collected in one corn field in Madison Parish and one in Richland Parish (August 30). Also taken from corn in East Carroll Parish, making 3 parishes infested. (Oliver). SOUTH DAKOTA - Infestations in north central and central regions average 66 and 70 percent, with 299 and 292 borers per 100 plants, respectively. (Hantsbarger). DELAWARE - Field corn populations approximately half of last season. Small larvae unusually common at this time. (Milliron, Conrad).

FALL ARMYWORM (Laphygma frugiperda) - NEW MEXICO - Light to moderate damage to millet, Lea County. Infestation heavy before control was applied Sept. 7. (Durkin). TEXAS - Infesting golf greens in Brazos County. (Turney). LOUISIANA - Remains in alfalfa in Bossier Parish. (Oliver). ALABAMA - Infesting grain sorghum in Sumter County. (Grimes). DELAWARE - Light to moderate in most of Kent and Sussex Counties. (Milliron, Conrad).

CHINCH BUG (Blissus leucopterus) - KANSAS - Moderate to heavy in several sorghum fields in Washington County, with highs of several thousand per plant. (Matthew).

WHITE GRUBS - UTAH - Damaging a number of lawns in Salt Lake County (Lindsay) and at Richfield and Cedar City (Knowlton et al.).

CORN EARWORM (Heliothis zea) - UTAH - Injury still serious, generally. (Knowlton et al.). NEW MEXICO - Very heavy in field corn, popcorn and broomcorn in Curry, Quay and Roosevelt Counties. Approximately 50-70 percent loss in one field of popcorn, Curry County, Sept. 7. (Durkin). NORTH CAROLINA - General infestation on soybeans throughout Wayne County. (Jones, Farrier). TEXAS - In grain sorghum heads, several localities in the panhandle. (Daniels). LOUISIANA - High populations infesting late sorghum in Morehouse and Tensas Parishes. (Oliver). WASHINGTON - Infestations of 3-100 percent in 50 cornfields sampled in Yakima-Prosser area, August 15-19. Most fields showed over 60 percent infested ears. (Dailey). CALIFORNIA - Heavy on corn in Yolo County. (Cal. Coop. Rept.). ALABAMA - Light damage to grain sorghum in Geneva and Sumter Counties. (Grimes). MARYLAND - Considerable damage to pods in 9 fields of soybeans, Wicomico County. (U. Md., Ent. Dept.). DELAWARE - Larvae prevalent generally in ears of field corn. Destroying soybean pods, eastern Sussex County. Adults common in soybeans locally. (Milliron, Conrad). ARIZONA - Averaged 80 per 100 ears in one 30-acre field of sweet corn, Graham County. (Ariz. Coop. Rept.).

CORN LEAF APHID (Rhopalosiphum maidis) - NEW MEXICO - Building up on corn and sorghum, most areas of State. Heavy infestations on sorghum heads in Lea County, Sept. 7. (Durkin). TEXAS - Infestations generally light and widespread over the panhandle area. (Daniels). LOUISIANA - Late sorghum heavily infested in Morehouse and Tensas Parishes. (Oliver).

SOUTHERN CORNSTALK BORER (Diatraea crambidoides) - DELAWARE - Light infestation in field corn, Sussex County. (Milliron, Conrad).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - NEW MEXICO - One heavy infestation on corn, Quay County. Generally light in sorghum, Lea, Chaves and Quay Counties , Sept. 7. (Durkin).

SORGHUM WEBWORM (Celama sorghiella) - LOUISIANA - Heavy populations in late sorghum, Morehouse and Tensas Parishes. (Oliver). ALABAMA - Numerous in heads of grain sorghum in Geneva and Sumter Counties. (Grimes).

ARMYWORM (Pseudaletia unipuncta) - TEXAS - Damaging grain sorghum in some areas of the panhandle. (Daniels).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - WASHINGTON - Mostly moderate in field corn, Columbia Basin and Yakima Valley. Light to moderate in 10 yards of late hops in Moxee area. (Dailey).

RICE STINK BUG (Oebalus pugnax) - LOUISIANA - In several rice fields at 30-90 per 100 sweeps, St. Landry, Acadia, Vermillion and Lafayette Parishes. (Oliver).

NORTHERN MASKED CHAFER (Cyclocephala borealis) - MARYLAND - Feeding on grass roots and spot-killing, College Park area, with 6-9 per square foot in one lawn. (U. Md., Ent. Dept.).

ARMY CUTWORM (Chorizagrotis auxiliaris) - NEW MEXICO - Heavy on lawns in Dona Ana and Bernalillo Counties. Spotty infestations on alfalfa in Dona Ana County, Sept. 7. (Durkin).

A WEEVIL (Centrinaspis sp.) - DELAWARE - Common in cornstalks throughout Kent and Sussex Counties. (Milliron, Conrad).

A GRASS MITE (Oligonychus stickneyi) - NEW MEXICO - Heavy and spotty in corn in Torrance County, Sept. 7. (Durkin).

A FALSE CHINCH BUG-TEXAS- Nysius sp. infesting grain sorghum in Hale, Swisher, Castro, Deaf Smith, Carson and Grey Counties. Infestations light to heavy. (Daniels).

DUSKY SAP BEETLE (Carpophilus lugubris) - DELAWARE - Abundant in ears of field corn, Sussex County. Less numerous northward. (Milliron, Conrad).

SOUTHERN BEET WEBWORM (Pachyzancla bipunctalis) - MISSISSIPPI - Larvae feeding on grass in Jackson County, September 6. (Bond).

SPOTTED ALFALFA APHID (Therioaphis (Pterocallidium) maculata) - UTAH - Now as far north as Salt Lake County and present in at least 15 counties. (Knowlton et al.). NEVADA - Moderate to heavy in Esmeralda, Mineral and Nye Counties. Many fields being treated, Sept. 6. (Parker). Increasing to economic level in dry fields northwest of Gerlach, Washoe County. New infestations located north of Gerlach, Sept. 6. (Bechtel). Populations higher than last year in Yerington area, Lyon County. Control being applied, Sept. 6. (Lauderdale). INDIANA - Has moved 50 miles eastward up Ohio River to Madison and 50 miles north of the river. Only apparent damaging populations are in Spencer and Perry Counties. New records for Clark, Jefferson, Washington, Orange, Lawrence and Dubois Counties. (Wilson). COLORADO - Taken between New Castle and Glenwood Springs, Garfield County. Las Animas County, 29 per sweep (Sept. 7); Prowers County, 35 per sweep; Otero County, 21 per sweep (Sept. 3-7). (Exp. Sta.). ALABAMA - Found for first time in Macon County. Infestation light. (Grimes). KANSAS - Populations down to near non-economic levels. No reports of infestations requiring control. (Matthew).

POTATO LEAFHOPPER (Empoasca fabae) - INDIANA - Continues damage to alfalfa in southern third of State. (Wilson).

LEAFHOPPERS - ARIZONA - Numerous on alfalfa, 100-130 per 100 sweeps, Graham County. Damaging Lippia and Dichondra lawns in Casa Grande area, Pinal County. (Ariz. Coop. Rept.).

PLANT BUGS - UTAH - Adelphocoris superbus above normal in alfalfa seed fields, Duchesne and Uintah Counties. (Knowlton et al.). INDIANA - Adelphocoris lineolatus, A. rapidus and Lygus spp. continue unusually heavy in southern areas. (Wilson). OREGON - Low numbers of Lygus spp. in alfalfa, 0-3 adults and nymphs per 10 sweeps in Malheur. (Capizzi). SOUTH DAKOTA - Lygus spp. averaging 10 per 10 sweeps in some central region alfalfa fields. (Hantsbarger). ARIZONA - Lygus spp. 160-180 per 100 sweeps in Graham County. (Ariz. Coop. Rept.).

PEA APHID (Macrosiphum pisi) - OREGON - Populations low, 3-5 per 10 sweeps, in 8 surveyed alfalfa fields, Malheur County. (Capizzi). UTAH - Moderate local injury to alfalfa for hay in several counties, increasing many localities. (Knowlton et al.). SOUTH DAKOTA - Populations building up in eastern alfalfa fields with counts of 20 per 10 sweeps. (Hantsbarger). NEVADA - Counts of 200-400 per sweep, Washoe County, Sept. 6. (Bechtel). Averaging 100-200 per sweep, Mineral County, Sept. 6. (Parker).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - ALABAMA - Damaging peanuts in Geneva County. (Grimes).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - COLORADO - Larval numbers decreasing (300 per 100 sweeps, Aug. 30; 40 per 100 sweeps, Sept. 5.). (Exp. Sta.).

BEET ARMYWORM (Laphygma exigua) - LOUISIANA - Infesting alfalfa in Bossier Parish. (Oliver).

CLOVER ROOT CURCULIO (Sitona hispidula) - UTAH - Common in alfalfa and red clover fields. (Knowlton et al.).

A PYGMY MOLE-CRICKET (Tridactylus minutus) - UTAH - Collected under rocks in a home lot, Logan, June 1. (Det. A. B. Gurney). Apparently new record for State. (Knowlton et al.).

STINK BUGS - SOUTH DAKOTA - Thyanta spp. and Peribalus limbolarius up to 3 nymphs and adults per 10 sweeps in central region alfalfa fields. (Hantsbarger).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - LOUISIANA - Heavily infesting alfalfa, up to 150 larvae per 100 sweeps, Tensas Parish. Remains in soybeans at 25-100 per 100 sweeps in Pointe Coupee, St. Landry and West Baton Rouge Parishes. (Oliver).

THRIPS - UTAH - Abundant in blossoming alfalfa in Box Elder, Millard, Duchesne and Uintah Counties. (Knowlton et al.).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - ALABAMA - Light infestation in alfalfa in Macon County. (Grimes).

JAPANESE BEETLE (Popillia japonica) - DELAWARE - Few adults feeding on soybeans, Sussex County, Sept. 10. (Milliron, Conrad).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Larvae active on soybean foliage, generally. (Milliron, Conrad).

FRUIT INSECTS

APPLE MAGGOT (Rhagoletis pomonella) - PENNSYLVANIA - Ten percent of apples infested in untreated orchard in Clinton County. (Gesell). Growers with poor spraying programs experiencing most difficulties in northwestern area. (Adams).

OBLIQUE-BANDED LEAF ROLLER (*Archips rosaceana*) - DELAWARE - Causing moderate amount of foliage damage in apple orchards, central Kent County. (Kelsey).

RED-BANDED LEAF ROLLER (*Argyrotaenia velutinana*) - DELAWARE - Active in apple orchards in central Kent County. Small to full-grown larvae causing foliage and fruit injury. (Kelsey).

A LEAF ROLLER - DELAWARE - Caused conspicuous amount of foliage injury in apple orchards in central Kent County. Tentatively identified as *Platynota* sp. (Kelsey).

YELLOW-NECKED CATERPILLAR (*Datana ministra*) - NORTH CAROLINA - Heavy larval infestation of early instars on apple leaves locally in Duplin County and skeletonizing apple leaves locally in Wake County. (Farrier, Reid).

ORCHARD MITES - DELAWARE - Decline in activity of *Tetranychus schoenei* and *Panonychus ulmi* on apples. (Kelsey). UTAH - *Bryobia praetiosa* damaging orchards in Salt Lake County. (Knowlton). NEW MEXICO - *Bryobia praetiosa* and *Tetranychus mcdanieli* heavy many unsprayed orchards in Lincoln, Otero, Santa Fe, Bernalillo, Torrance, Rio Arriba and San Juan Counties. (Durkin, Sept. 7).

SAN JOSE SCALE (*Aspidiotus perniciosus*) - PENNSYLVANIA - Some heavy infestations apple orchards with incomplete spray programs in Juniata and Blair Counties. (Udine). Persisting and common in smaller commercial orchards in northwestern area. (Adams). MARYLAND - Heavy on apples at Towson. (U. Md., Ent. Dept.).

PEAR PSYLLA (*Psylla pyricola*) - CALIFORNIA - First reports from Santa Clara, Alameda and Yolo Counties. (Cal. Coop. Rept.).

GRAPE MEALYBUG (*Pseudococcus maritimus*) - WASHINGTON - Severe infestations on Concord grapes in Grandview-Sunnyside area causing concern in processing plants. (Frick).

WESTERN GRAPE LEAF SKELETONIZER (*Harrisina brillians*) - ARIZONA - Causing considerable damage to home plantings of grapes in Coolidge area, Pinal County. (Ariz. Coop. Rept.).

WALNUT HUSK FLY (*Rhagoletis completa*) - CALIFORNIA - Infestations found in new locations in Santa Clara, Stanislaus and Mendocino Counties. (Cal. Coop. Rept.).

WALNUT CATERPILLAR (*Datana integerrima*) - TEXAS - Medium to heavy on pecans in Kaufman, Hunt, Delta, Rockwall and Van Zandt Counties (Hawkins) and in Red River County (Herschler).

TRUCK CROP INSECTS

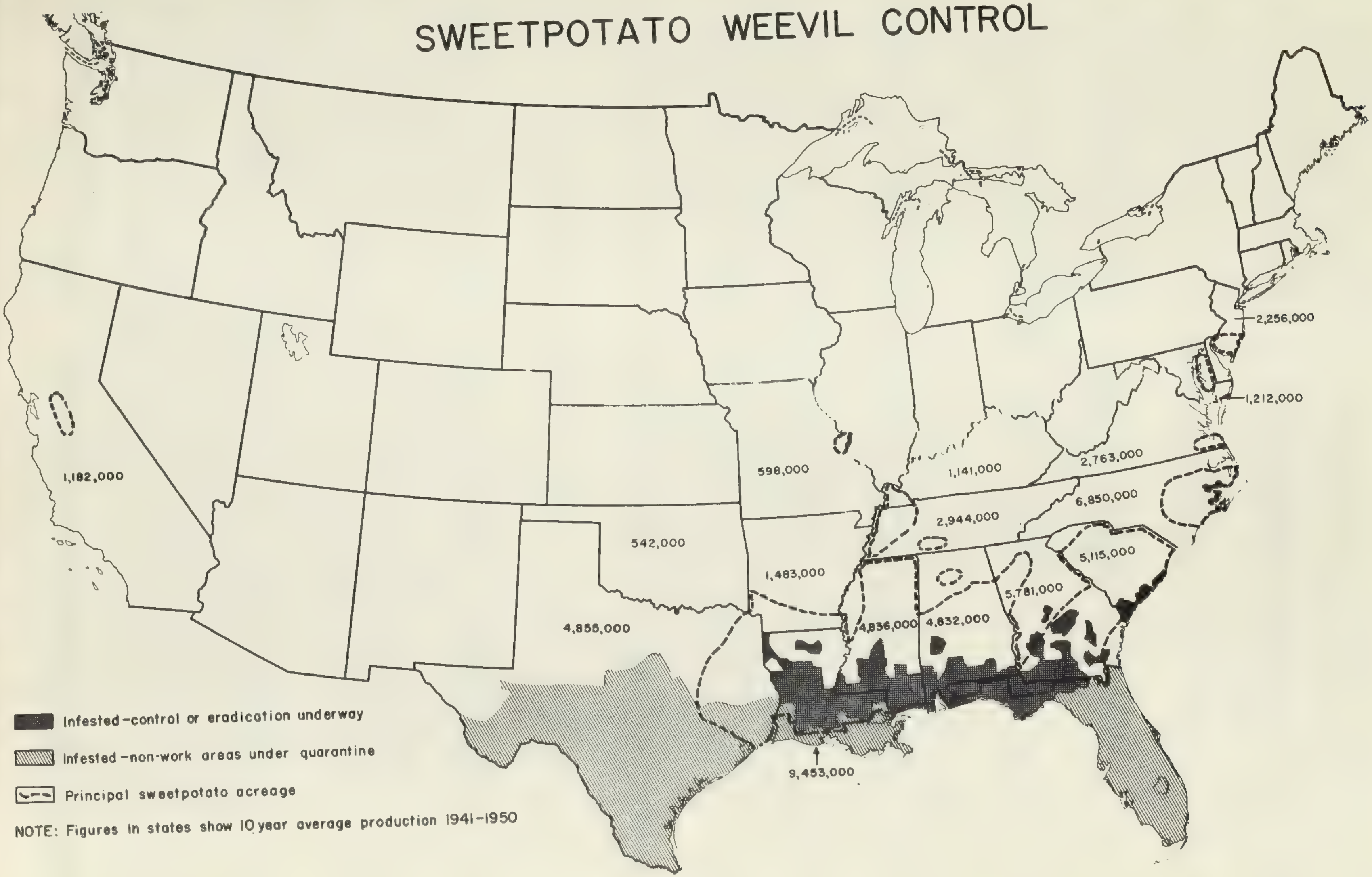
TOMATO FRUITWORM (*Heliothis zea*) - NEW MEXICO - Generally light to heavy on tomatoes in Luna and Dona Ana Counties with heavy loss some fields where control not applied. (Durkin, Sept. 7). UTAH - Damage moderate in home gardens in Beaver, Kane and Iron Counties. (Knowlton). DELAWARE - Very destructive to late lima beans numerous locations southern Kent and Sussex Counties. (Milliron, Conrad). Also recorded in pepper fruits. (MacCreary).

TOMATO HORNWORM (*Protoparce quinquemaculata*) - NEW MEXICO - Light to heavy on tomatoes in Dona Ana, Lea and Luna Counties, depending on control. (Durkin, Sept. 7).

TOMATO RUSSET MITE (*Vasates lycopersici*) - PENNSYLVANIA - Several large patches in 70 acre field of tomatoes in Snyder County. (Gesell).

FALL ARMYWORM (*Laphygma frugiperda*) - DELAWARE - Few found in pepper fruits, Sussex County. (MacCreary).

SWEETPOTATO WEEVIL CONTROL



NOTE: Figures in states show 10 year average production 1941-1950

CUTWORMS - MARYLAND - Moderate to heavy damage to sweetpotatoes in Salisbury area. Estimated loss nearly 200 bushels one farm. (U. Md., Ent. Dept.).

MEXICAN BEAN BEETLE (*Epilachna varivestis*) - NEW MEXICO - Heavy on beans in Torrance County. Many fields severely damaged with as much as 50 percent loss. (Durkin, Sept. 7). UTAH - Still damaging at Kanab and home gardens several northern counties. (Knowlton).

SPIDER MITES - ALABAMA - Severe infestation on lima beans in Lee County. (Guyton).

BEET LEAFHOPPER (*Circulifer tenellus*) - CALIFORNIA - About 50 acres of banana squash total loss due to curly top in Los Angeles County. Heavy rains in mid-May kept filaree alive long enough for leafhopper migrations from drying plants in June to infect local squash. (Cal. Coop. Rept.).

MELON APHID (*Aphis gossypii*) - OKLAHOMA - Very heavy some commercial cantaloup fields in Major County. (Owens).

SQUASH BUG (*Anasa tristis*) - UTAH - Damaging in Beaver, Sevier and Salt Lake Counties. (Knowlton).

ONION MAGGOT (*Hylemya antiqua*) - OREGON - Damage to onions in Malheur County fell off abruptly about mid-August. Early estimate of 20 percent loss of crop now considered high. (Bond).

CABBAGEWORMS - NEW MEXICO - *Trichoplusia ni* medium to heavy in fall lettuce in Eddy, Lea, Dona Ana, Bernalillo, Valencia and Sandoval Counties. Control being applied. (Durkin, Sept. 7). RHODE ISLAND - Late-instar *Pieris rapae* causing moderate damage to abandoned cabbage and broccoli at West Kingston. (Stoner).

STRAWBERRY ROOT WEEVIL (*Brachyrhinus ovatus*) - WASHINGTON - Severe damage to peppermint roots by mature larvae one field near Prosser. (Frick).

STRAWBERRY CROWN MOTH (*Ramosia bibionipennis*) - UTAH - Larvae damaging many dewberry canes at Providence, July 12. Det. J. F. G. Clark and H. W. Capps. (Davis, Knowlton).

COTTON INSECTS

BOLLWORMS (*Heliothis* spp. et al.) - ARIZONA - Increased in Pinal County but controlled by insecticides for lygus bugs and cotton leaf perforators. (Ariz. Coop. Rept.). CALIFORNIA - Populations increased considerably and some fields heavily damaged. Predators continue very active in most fields. (Cal. Cott. Lett.). NEW MEXICO - Continue to cause heavy damage in most fields in Dona Ana, Eddy, Luna and Hidalgo Counties. Generally light to medium with scattered heavy infestation in several other counties. (Durkin, Sept. 7). OKLAHOMA - Activity decreasing in southwest, infestations generally less than 5 percent. (Bryan).

CABBAGE LOOPER (*Trichoplusia ni*) - ARIZONA - Increasing on cotton in many fields in Pinal County; as many as 4 per leaf. (Ariz. Coop. Rept.). NEW MEXICO - General but light in several counties. (Durkin, Sept. 7). OKLAHOMA - Looper damage decreasing in southwest. (Bryan).

COTTON LEAFWORM (*Alabama argillacea*) - NEW MEXICO - Generally heavy in cotton in Quay, Curry, Roosevelt, Lea, Otero and Hidalgo Counties. Many untreated fields severely damaged. (Durkin, Sept. 7). OKLAHOMA - One field in Major County had 20-25 larvae per plant. (Owens).

SALT-MARSH CATERPILLAR (*Estigmene acrea*) - ARIZONA - Increasing but not at level warranting controls. (Ariz. Coop. Rept.).

LYGUS BUGS - ARIZONA - Some damage continues but decreasing in most areas. (Ariz. Coop. Rept.). CALIFORNIA - Moderate to heavy populations persisting in some fields in Imperial County but generally declining. (Cal. Cott. Lett.).

COTTON LEAF PERFORATOR (*Bucculatrix thurberiella*) - ARIZONA - Severe damage to 1756 acres of cotton in Eloy area of Pinal County. One 10-acre field completely defoliated. (Ariz. Coop. Rept.).

SPIDER MITES - NEW MEXICO - *Tetranychus telarius* and *T. desertorum* light to heavy and very spotty in cotton in Chaves, Lea and Dona Ana Counties. (Durkin, Sept. 7).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

BAGWORMS - NEW MEXICO - *Thyridopteryx* sp. very heavy on spruce, juniper, arborvitae, elm and other trees in Curry and Chaves Counties. (Durkin, Sept. 7). ARKANSAS - Severe infestations on cedar in Boone and Fulton Counties. (Ark. For. Comm., Sept. 1).

NANTUCKET PINE MOTH (*Rhyacionia frustrana*) - MISSISSIPPI - Larvae numerous on twigs and small pine trees in Choctaw County. (Hutchins). NORTH CAROLINA - Larvae infesting terminal growth of pine locally in Person County. (Scott, Farrier). ALABAMA - Light infestation in Coffee County. (Grimes).

PINE TIP MOTHS- ARKANSAS - Reports indicate most severe infestations in many years, ranging from east delta through southern pine belt to the north Arkansas mountains. Occasional trees forty feet or more in height being attacked. (Ark. For. Comm., Sept. 1).

PINE NEEDLE SCALE (*Phenacaspis pinifoliae*) - RHODE ISLAND - Very heavy infestation on pine at Charlestown. (Mathewson). UTAH - Damaging blue spruce and pine needles at Salt Lake City. (Knowlton).

SPRUCE NEEDLE MINER (*Taniva albolineana*) - CALIFORNIA - Intensive survey negative in other areas of Modoc County. No live insects found on previously infested trees in Alturas. (Cal. Coop. Rept.).

WHITE-PINE SAWFLY (*Neodiprion pinetum*) - INDIANA - Locally abundant in commercial Christmas tree and private ornamental plantings at Bristol and Rochester. (Schuder).

IPS BEETLES - ARKANSAS - Slightly more active than one month ago, particularly in south central and west central areas. (Ark. For. Comm., Sept. 1).

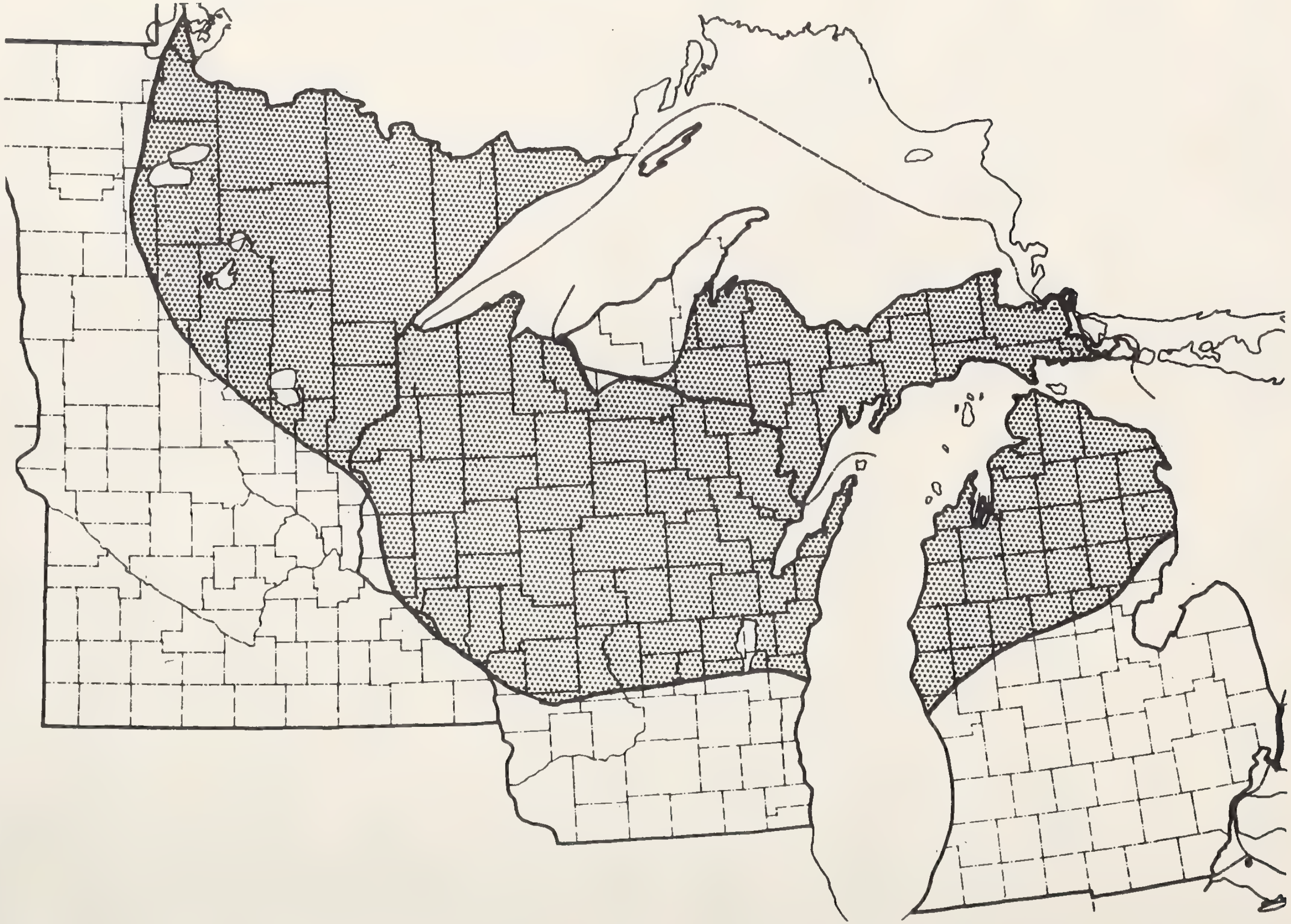
WHITE GRUBS (*Phyllophaga* spp.) - LOUISIANA - Infesting pine seedling nursery at Homer. Considerable damage resulted. Control applied. (Oliver).

ROSE-SLUG (*Endelomyia aethiops*) - UTAH - Damaging roses at Logan, June 1, Det. B. D. Burks. Seldom reported in State. (Knowlton).

FALL WEBWORM (*Hyphantria cunea*) - LOUISIANA - Infestations remain on pecan, persimmon, willow and plum throughout State. (Oliver). WASHINGTON - Severe infestations near Chelan in abandoned apple orchards. Numerous webs observed principally on wild cherry in area. (Dailey, Ballard). Numerous webs in Puyallup Valley area on alder, cottonwood, cherry and apple. Webs abundant on wild cherry, alder and willow in Ellensburg and along the Yakima River towards Yakima for about five miles. Webs frequent from Yakima to Moxee City and south to Toppenish. Some neglected apple trees severely defoliated in Wapato area. Scarce in Goldendale area. (Dailey).

ORANGE-STRIPED OAKWORM (*Anisota senatoria*) - RHODE ISLAND - Late-instar larvae defoliating oaks in considerable numbers with pupation beginning. (Mathewson).

DISTRIBUTION OF JACK-PINE BUDWORM IN THE LAKE STATES



USDA Forest Pest Leaflet 7, May 1956

A CATERPILLAR (Allononyma vicarialis) - UTAH - Folding many leaves on birch trees between Sevier and Big Rock Candy Mountain during mid-June. Det. H. W. Capps. Unusual record for State. (Knowlton).

RED-HUMPED CATERPILLAR (Schizura concinna) - OKLAHOMA - Defoliating native sumac in Red Oak area of Latimer County. Heavy infestation on scattered plants. (Coppock, Latham).

PUSS CATERPILLAR (Megalopyge opercularis) - NORTH CAROLINA - On roses locally in Forsyth County and specimens identified from Surry, Guilford and Cabarrus Counties. (Scott, Jones, Farrier).

ELM BORER (Saperda tridentata) - RHODE ISLAND - Larvae burrowing in injured elm limbs. (Beckman).

ELM LEAF APHID (Myzocallis ulmifolii) - RHODE ISLAND - Populations building up on elm at Kingston. (Stoner).

PAINTED MAPLE APHID (Drepanaphis acerifoliae) - DELAWARE - Very abundant on maple, especially Norway maple, causing foliage-drop at many places in New Castle County. (Milliron, Conrad).

INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - UTAH - Seriously abundant at Kanab, Heber City, parts of Sevier, Uintah, Tooele and Millard Counties. (Knowlton). NEVADA - Becoming a nuisance in Reno-Sparks area, Washoe County. (Gallaway, Sept. 6). CALIFORNIA - Bureau of Vector Control reports indicate gradual but definite increase in populations in coastal, San Joaquin and Sacramento Valleys. Anopheles freeborni continues numerous in parts of northern Sacramento Valley. (Cal. Coop. Rept.).

TABANIDS - ALABAMA - Horse flies moderate on cattle in Wilcox County. (Hays).

HOUSE FLY (Musca domestica) - RHODE ISLAND - Adult populations increased in West Kingston area. (Stoner). SOUTH DAKOTA - Prevalent in Brookings area. (Hantsbarger).

HORN FLY (Siphona irritans) - UTAH - Continues to bother livestock in Salt Lake and Box Elder Counties. (Knowlton).

BROWN DOG TICK (Rhipicephalus sanguineus) - ALABAMA - Numerous in Lee County. (Grimes).

CAT FLEA (Ctenocephalides felis) - NORTH DAKOTA - Basement infestations numerous in many sections of State. (N. D. Ins. Rept.).

WING LOUSE (Lipeurus caponis) - PENNSYLVANIA - Heavy infestation on poultry in poultry plant in Juniata County. (Udine).

STORED PRODUCTS INSECTS

CONFUSED FLOUR BEETLE (Tribolium confusum) - ARIZONA - Numbers increasing most stored grain. Some storage treated in Pinal County. (Ariz. Coop. Rept.).

A TENEBRIONID (Tribolium destructor) - WASHINGTON - Single specimen found infesting food in home in Seattle on September 12. New record for State. (Hatch).

BENEFICIAL INSECTS

LACEWINGS - UTAH - Adults and larvae abundant in northern and central areas. (Knowlton). OKLAHOMA - Adults 7-20 per 10 sweeps in northern and eastern alfalfa fields. (Coppock, Latham).

DAMSEL BUGS - UTAH - Moderately numerous in alfalfa fields. (Knowlton).

SYRPHIDS - UTAH - Larvae often numerous in alfalfa fields in central and Uintah Basin where pea aphid is abundant. (Knowlton, Sept. 5).

MISCELLANEOUS INSECTS

BOXELDER BUGS (*Leptocoris trivittatus*) - NORTH DAKOTA - Numerous infestations in several western area localities. Invasion of some homes reported. (N. D. Ins. Rept.).

CARPET BEETLES - NORTH DAKOTA - Home infestations continue to be reported from many sections. Inquiries more numerous this year than previously. (N. D. Ins. Rept.).

OLD-HOUSE BORER (*Hylotrupes bajulus*) - PENNSYLVANIA - Two infestations reported in houses in Allegheny County. (Arnold, Mallis).

AN ANT (*Lasius claviger claviger*) - CONNECTICUT - Many square miles of water surface between Welch's Point and Pond Point on Long Island Sound covered with winged forms. Counts 35 to 50 per square foot. (Loosanoff, Johnson).

WHITE LINED SPHINX (*Celerio lineata*) - ARIZONA - Larvae present in large numbers some areas of Pinal County. (Ariz. Coop. Rept.).

CORRECTION

CEIR 7(24): 470 - WHITE PINE SAWFLY should be RED-PINE SAWFLY (*Neodiprion nanulus*).

ADDITIONAL NOTES

OKLAHOMA - GRASSHOPPER populations remain non-economic all areas of State. Second-generation *Melanoplus bilituratus* typically fifth instar in the eastern section. *M. differentialis*, *M. bilituratus* and *Brachystola magna* seen mating. SPOTTED ALFALFA APHID populations generally light in eastern and northeastern counties, up to 400-500 per 10 sweeps some fields with young growth. FALL ARMYWORM becoming more common in sorghum heads in the central and eastern sections; up to 4 larvae per sorghum head in Hughes County (eastern); lighter in Payne County (north central). Heaviest CORN EARWORM infestation noted in Hughes County (0-7 per sorghum head with an average of 2-3). Averaged less than one per head elsewhere. Eighteen per cent of corn plants in a field in Ottawa County contain overwintering larvae of SOUTHWESTERN CORN BORER. Thousands to tens of thousands of CHINCH BUG per mature corn plant in Ottawa County (northwest); lighter in central and eastern counties. Light infestation of CORN LEAF APHID (up to hundreds per plant) on young sorghum in the eastern section. (Coppock, Latham). EUROPEAN CORN BORER infesting approximately 5 percent of corn plants in a field in Nowata County; 1-3 larvae per plant. (Arbuthnot). Up to 3 WEBWORM larvae per sorghum head in Hughes County. (Coppock, Latham).

IDAHO - Scattered areas, totaling several thousand acres, of hemlock and grand fir forests, have been heavily defoliated by BLACK-HEADED BUDWORM in the Kaniksu National Forest. LARCH CASEBEARER (Coleophora laricella) found infesting approximately 2500 acres in vicinity of St. Maries. This is first record of appearance in western forests. (Miss. For. Ins. Lab.). Continued high populations of PEA APHID in an alfalfa seed field near Marsing, Owyhee County. (Waters). Populations in alfalfa seed fields in southeastern area vary considerably, but generally lower than southwestern areas. (Gittins). LYGUS BUGS, Predominantly Lygus hesperus, common on uncut alfalfa seed fields throughout southeastern area, occasionally abundant. SPOTTED ALFALFA APHID surveys in Malad area of Oneida County indicate pest not established. (Gittins). TWO-SPOTTED SPIDER MITE causing economic damage to 2 red clover fields north of Nampa. No beneficial Typhlodromus mites present. Populations of CLOVER ROOT BORER damaging in many red clover seed fields in Canyon County. (Waters). Numerous reports of ANTS becoming nuisance in homes in Twin Falls area. (Gibson).

FAMILY DESIGNATIONS FOR CERTAIN MOTHS

Recent actions by the International Commission or Zoological Nomenclature fix the scientific designations of two families of moths for which there has been lack of uniformity in the past. In keeping with Insect Identification and Parasite Introduction Laboratories' policy of adhering to the International Rules of Zoological Nomenclature, the names indicated below for the appropriate groups of moths will be used.

NOCTUIDAE (Owlet and Underwing Moths) - Heretofore referred to as Phalaenidae or, prior to 1937, as Noctuidae. The use of Phalaenidae was based on the decision of the International Commission set forth in Opinion 124 (1936) in which it was stated that the various sub-divisions of genera (of which Noctua was one), published by Linnaeus in 1758, were not to be accepted as of that date as having sub-generic status. With Noctua not available as of 1758, the technically correct family name became Phalaenidae, based on the generic name Phalaena. Because of lack of uniformity in the application of the family name Phalaenidae among taxonomists in different parts of the world, the International Commission under its plenary powers has taken the following actions as announced in Opinion 450. (See Opinions, Int. Comm. Zool. Nomencl., v. 15, pt. 15, 1957):

> Phalaenidae declared invalid because its type genus, Phalaena, is suppressed under the plenary powers. Phalaenidae placed on the Official Index of Rejected Family-Group Names.
>
> Noctuidae, with type genus Noctua, reinstated under the plenary powers, declared the family name for the Owlet Moths, and placed on the Official List of Family-Group Names.

PYRALIDAE (Pyralid Moths) - Heretofore referred to as Pyralididae. The International Commission, under its plenary powers, has taken the following action:

> Pyralidae, type genus Pyralis, is placed on the Offical List of Family-Group Names.
>
> Pyralididae is suppressed, and placed on the Offical Index of Rejected Family-Group Names.

LIGHT TRAP COLLECTIONS

	Pseud. unip.	Agrot. yps.	Prod. orn.	Perid. marg.	Laphyg. frug.	Heliothis zea	vires.	Protoparce sexta	quin.
ALABAMA (Counties)									
Lee 9/7, 10, 12	48			13		68		5	3
De Kalb 9/7, 10, 12	1				4	11		18	9
Baldwin 9/5, 7	2	1			1	16			
COLORADO									
Greeley 8/27, 29	52			39					
Rocky Ford 8/24, 28	142	42		93	25				
FLORIDA									
Quincy 9/3						42		10	
ILLINOIS									
Urbana 9/5-11	14	13	42	18	37	17		4	
INDIANA (Counties)									
Orange 9/4-9	2	3	8			9		3	
Tippecanoe 9/6-12	27	5	96	2		52		8	
KANSAS									
Garden City 9/9-10	2	4				10		1	
Hays 8/22-28	132	60	108			144			
Manhattan 9/9-10	3	1	33			70		3	
Wathena 8/23-27		74				277		97	95
LOUISIANA									
Baton Rouge 9/1-13	32	82	158		564	532			
Curtis 9/1-12	96	88	252		220	176		50	
MARYLAND (County)									
Wicomico 9/3-9		4				22		33	11
NEBRASKA (Counties)									
Scotts Bluff 8/26-9/1	45	3		60		1			
Box Butte 8/27-9/2	197	5		160	6	35			
Lincoln 8/29-9/4	161	11		34	7	98		6	27
NORTH CAROLINA									
Duplin 9/12	1			7		15	3	7	6
Johnston 9/12	8	7		28		30	1	1	1
SOUTH CAROLINA (Counties)									
Charleston 9/2-8	18	7	38		47	165	5	6	2
Florence 9/7-13	68	4	80	2	150	244		22	5
Oconee 9/7-13	23	13	62	2	12	28	1	2	2
SOUTH DAKOTA									
Brookings 9/13	2								
TENNESSEE (Counties)									
Lauderdale 9/3-9	64	40	48		16	320		28	4
Madison	192	96	160		56	590		24	5
Lawrence	24	48	24		8	208		48	8
Maury	13	8	8		4	124		24	8
Robertson	4	40	44		20	188		31	3
Cumberland	26	46	140	1	50	122		6	3
Knox	60	12	68		104	76		6	6
Greene	8	28	120		20	64		10	4
Blount	13	8	28		60	32		6	2
Monroe	32	92	208		36	96		40	20
Johnson	48	28	260	36	40	140		16	4
TEXAS									
Waco 9/7-13	49		89	61		109	1		

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

ORIENTAL BLACK CITRUS APHID* (*Aphis citricidus*(Kirkaldy))

Economic Importance: Although this aphid has been known for many years as a destructive pest of citrus, its economic status was elevated sharply in 1946 when Brazilian research discovered that it transmitted the devastating tristeza disease of citrus. The disease caused loss of 7 million orange trees in the State of Sao Paulo, Brazil, alone between 1936-46. It is responsible for premature decline of grapefruit in South Africa and Australia and is a limiting factor in small sour lime production in West Africa. Millions of citrus trees have been attacked or are threatened in other countries. *Aphis citricidus* reportedly accounted for the rapid spread of tristeza in Brazil and Argentina following introduction of the disease into those countries. The insect has been confirmed as a vector also in Africa and Australia. As an agent of primary damage, it is most injurious to the young growth of citrus causing arrested development. The pest was rated as one of the five most important insects in Rhodesia in 1925 following a season of serious infestations. Severe damage is also reported from Formosa, Mauritius, New Zealand and other areas.

Although *A. citricidus* has not been recorded in the United States, strains of tristeza, or quick decline, virus occur in citrus in areas of California, Florida and Louisiana. Spread and intensity of the disease in this country, however, have been much less than in countries where the aphid is present.

Aphis citricidus
Infesting Citrus Twig

Tristeza Disease
in Orange Tree

Distribution: Most of Asia, Africa (generally south of the Sahara), Mauritius, Samoa, Fiji, Hawaii, New Zealand, Australia, Argentina, Brazil, Chile, Peru and Trinidad. Although *A. citricidus* has been reported from the Mediterranean region, records from that area have not been verified.

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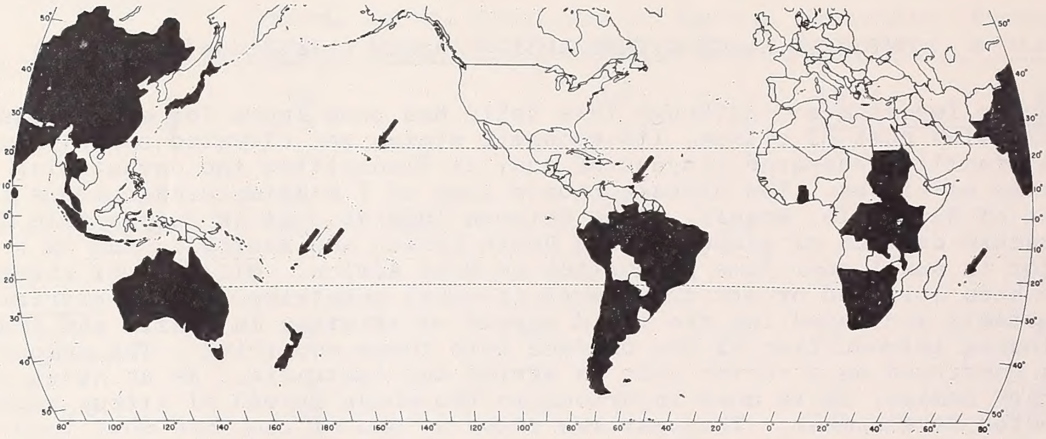
* Also called brown citrus aphid, tropical citrus aphid.

Figures: Infested twig from Cottier, W. 1938. New Zealand Jour. Agr. 57(4): 332-333. Tristeza disease of orange from Wallace, J. M. 1956. FAO Plant Protect. Bul. 4(6): 77-87. Aphid (drawn by Abernathy) from Zimmerman, E. C. 1948. Insects of Hawaii, Vol. 5, 464 pp. Honolulu.

General Distribution of Aphis citricidus



Hosts: Citrus including orange, lemon, grapefruit and lime. Also reported on cotton, azalea and Evodia hupehensis.

Life History and Habits: A. citricidus is viviparous. Development to maturity requires around 12 days. In New Zealand small colonies are found on terminals of citrus during the winter and the summer form of reproduction continues the year round although greatly slowed in the dormant season. Winged forms appear intermittently in the colony and these serve to disperse the population. As spring begins the colonies increase rapidly with the young growth. Severe host deformation occurs in heavy infestations. The pest is most prevalent in spring and early summer.

Description: Apterous form is black and about 2 mm. long. Base of antennae lighter, usually brownish. Parts of legs also not as dark as body. The winged aphid has same general coloring and is about the same length. The wings are transparent and colorless. Taxonomic details are shown in the illustration. (Prepared in Plant Pest Survey Section in cooperation with other ARS agencies.)

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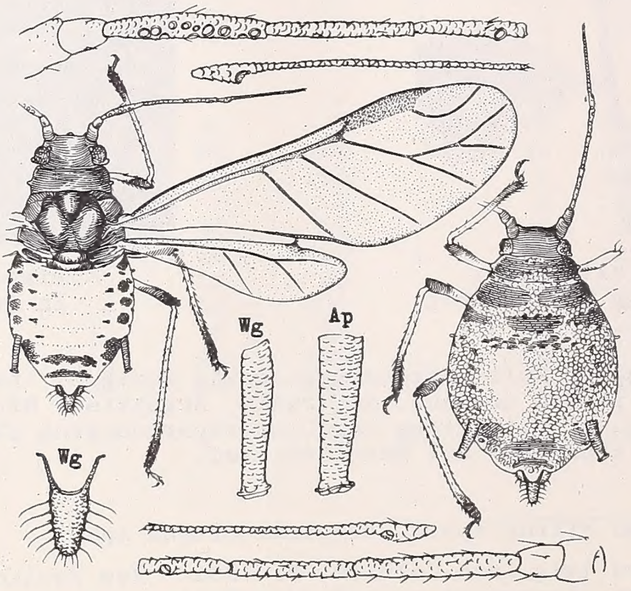

Oriental Black Citrus Aphid (Aphis citricidus)